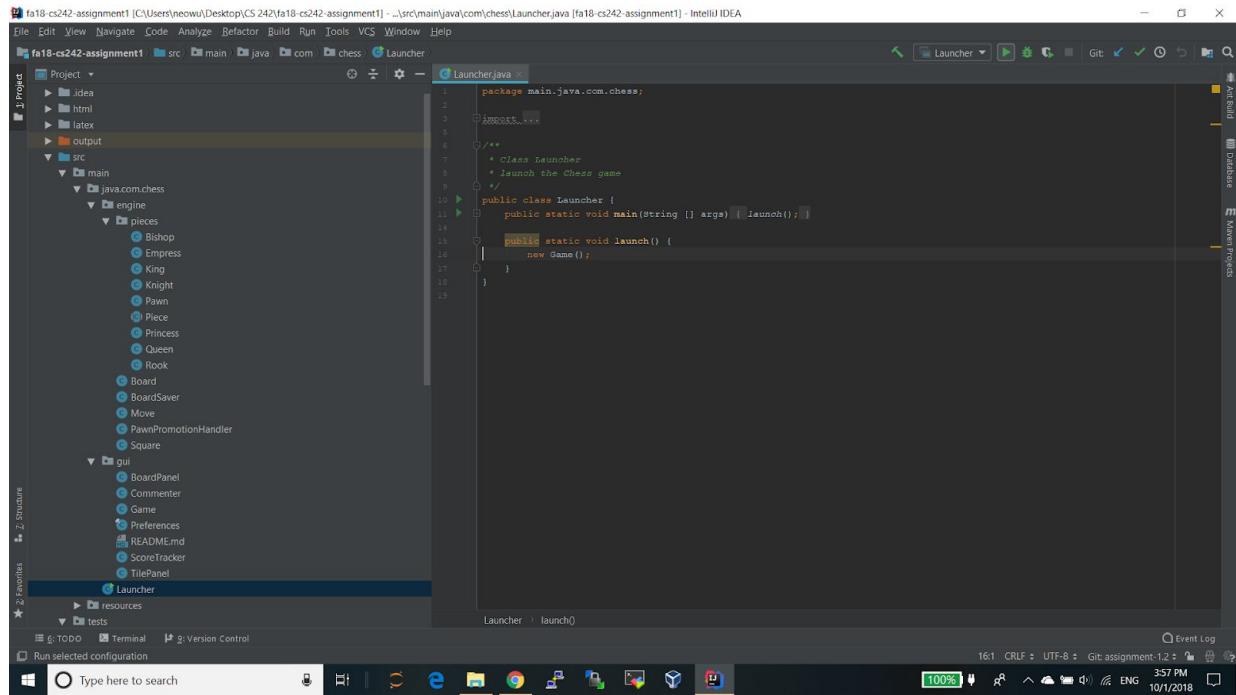


Manual Test Plan

Tiancheng Wu

Basic Tests:

To start, we can go to Launcher.java and Run 'Launcher'.



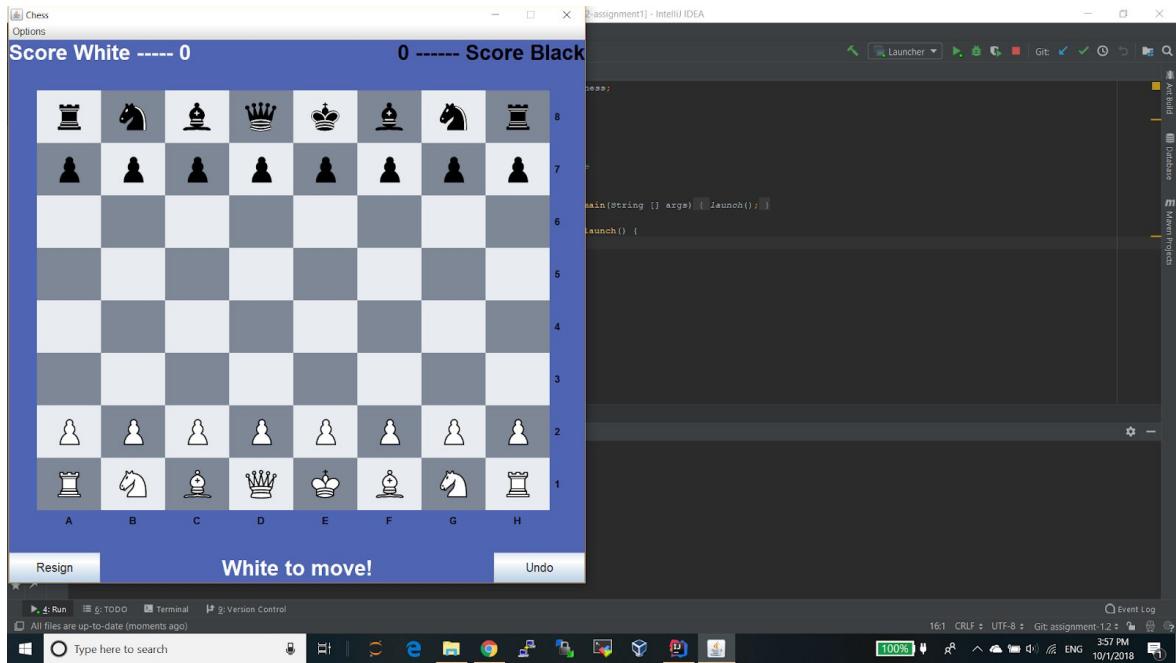
The screenshot shows the IntelliJ IDEA interface with the following details:

- Project Structure:** The left sidebar shows the project structure under "fa18-cs242-assignment1". The "src" directory contains "main" and "gui" packages. "main" contains "java.com.chess" which has "engine" and "pieces" sub-packages. "engine" contains classes like Bishop, Empress, King, Knight, Pawn, Piece, Princess, Queen, and Rook. "pieces" contains Board, BoardSaver, Move, PawnPromotionHandler, and Square. "gui" contains BoardPanel, Commenter, Game, Preferences, README.md, ScoreTracker, and TilePanel. A file named "Launcher" is selected in the "gui" package.
- Code Editor:** The main editor window displays the code for "Launcher.java". The code is as follows:

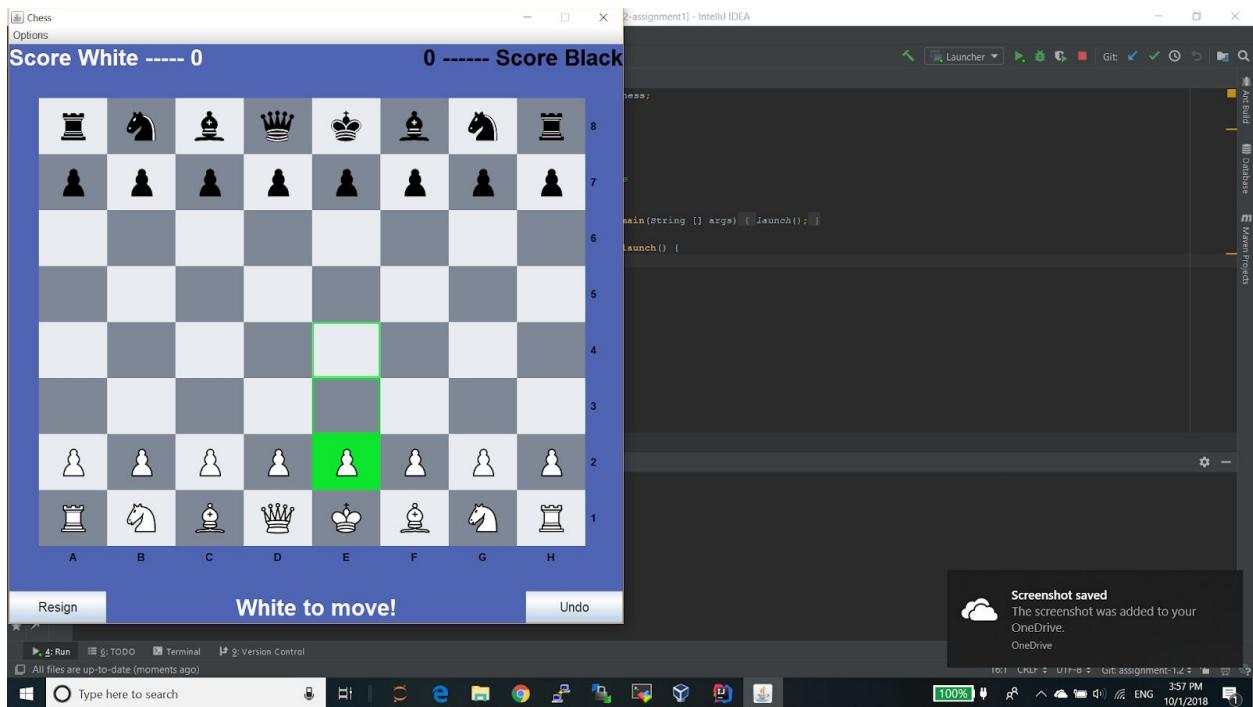
```
1 package main.java.com.chess;
2
3 /**
4  * Class Launcher
5  * launch the Chess game
6 */
7 public class Launcher {
8     /**
9      * launch()
10     */
11     public static void main(String [] args) { launch(); }
12
13     public static void launch() {
14         new Game();
15     }
16 }
17
18
19
```

- Toolbars and Status Bar:** The top bar includes standard IntelliJ IDEA menu items like File, Edit, View, Navigate, Code, Analyze, Refactor, Build, Run, Tools, VCS, Window, Help. The bottom status bar shows the current file (Launcher.java), line number (16:1), encoding (CRLF), file type (Java), and other system information.

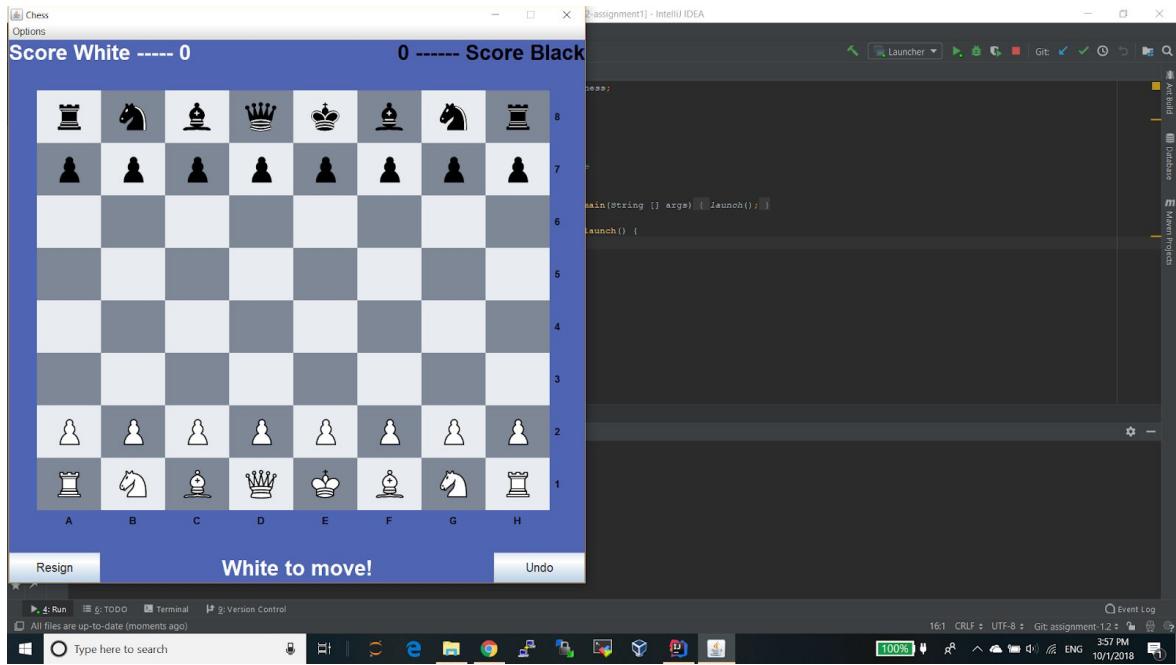
Then, we should see a board with GUI as follows. You can adjust parameters in Preferences.java to change size, color, and other configurations.



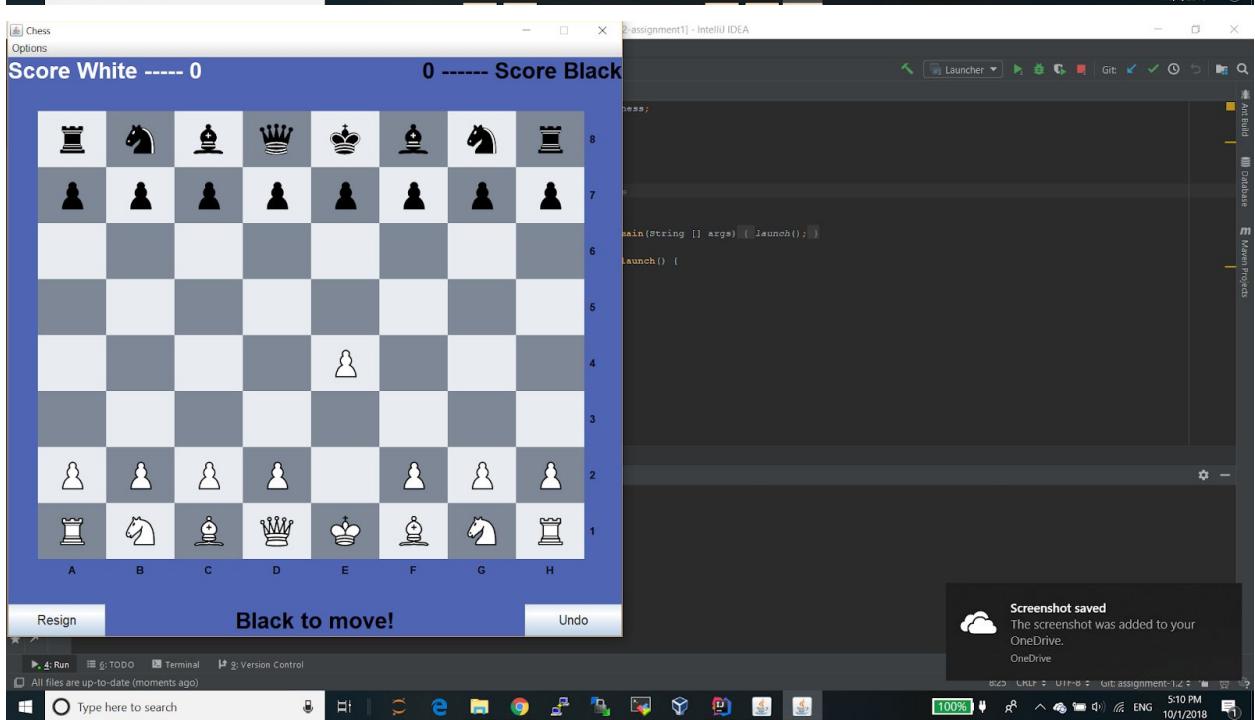
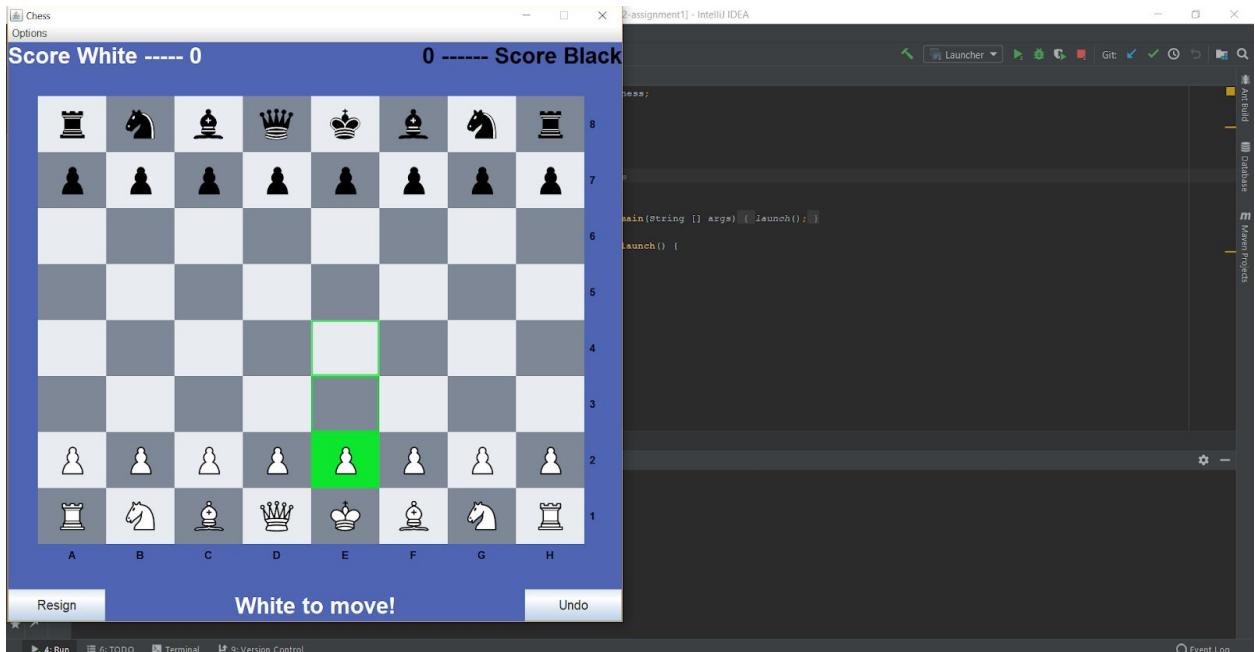
When you click on a piece, a hint should show.



When you click an empty square (not in hint), the hint should disappear.



Otherwise, when you click on the hint, the piece will be move to the given place.



The rest of sections are just games to show basic functionalities of the game. I will place special notes for special checkings in between (for example: Undo). Otherwise, it's just shows what the game look like after a series of clicks. A user should be able to reproduce it by following the images and hints.

I crop my screenshots so only the game part will be shown

Testing Checkmate:



















At the end of this game, the user should click on a piece or resign/undo and check if any action occurs (Nothing should respond except restart)
Note Black Score increased by one. After click restart, the score should be saved and a new board should occur. Ready to the new Game.

Testing Draw:

































































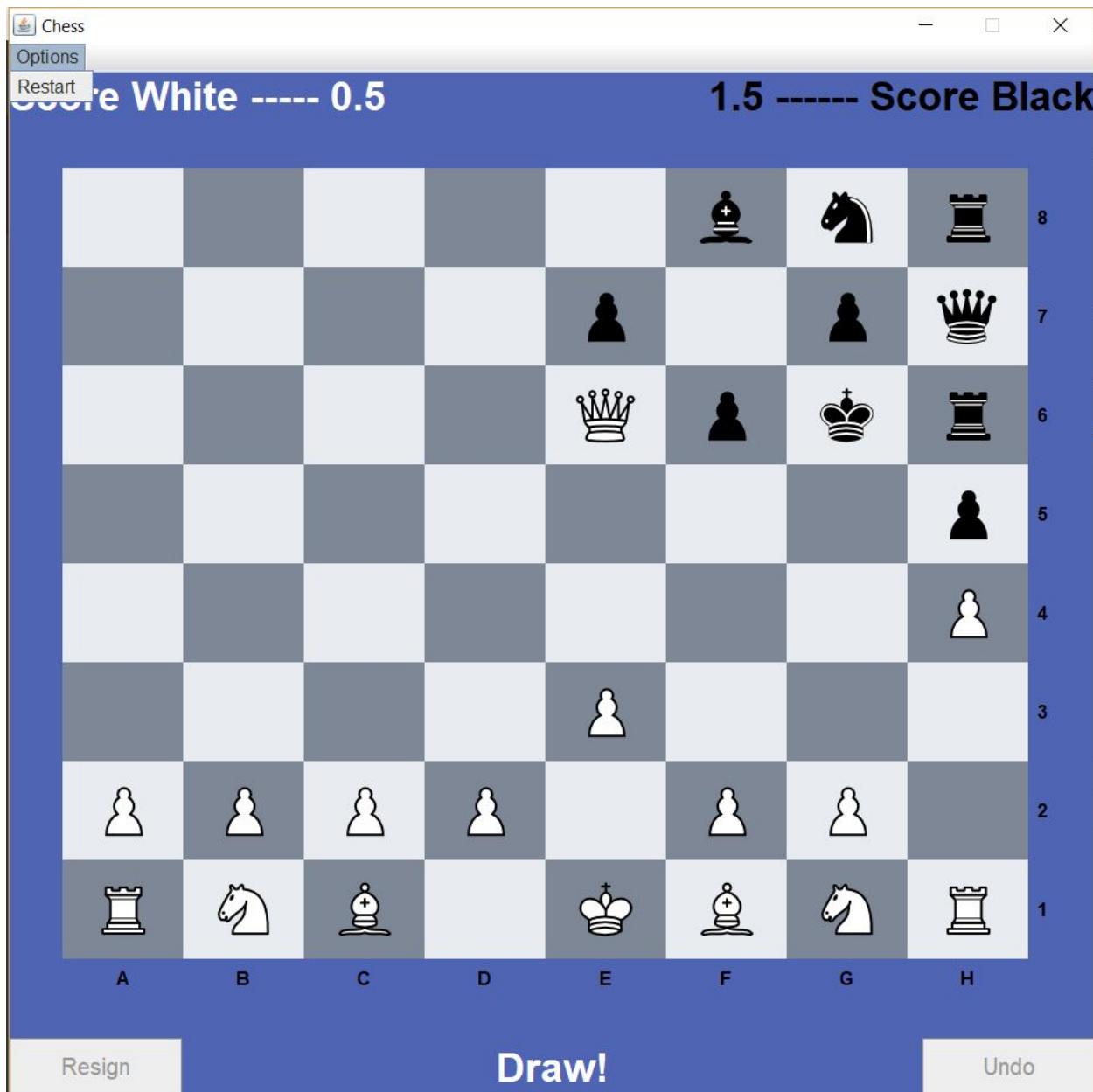










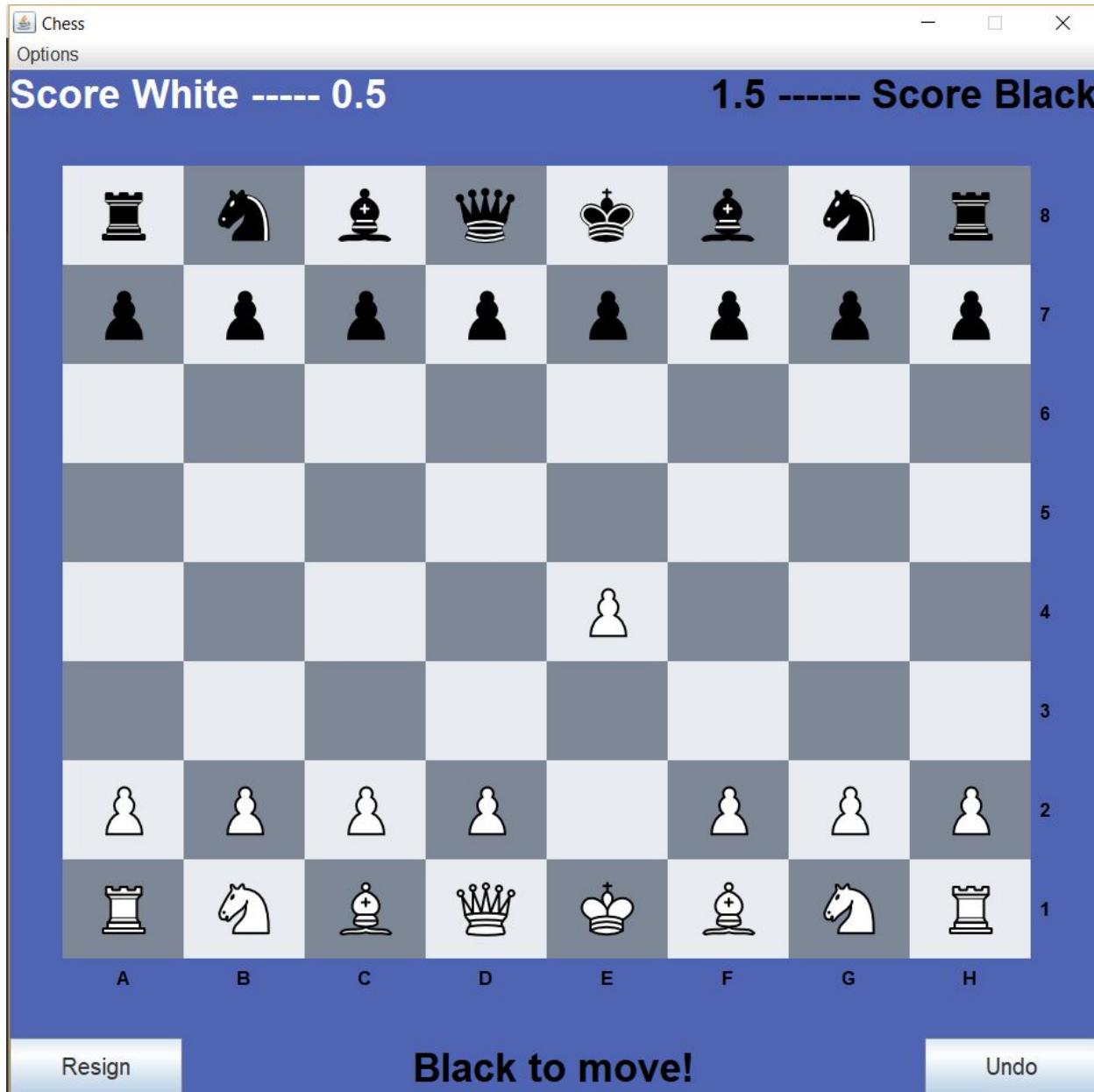


The Draw has been reached, and we can continue restart as usual. Note the score for both players have increased by 0.5.

Testing Undo:









































Note formal promotion allows four types. My engine supports it but I haven't implemented corresponding UI yet. For simplicity, let's just go with the most common queen promotion.

Now let's try undo and check if some actions are still Doable.









Note I undo twice and the pawn can still be promoted on the left.

Let's just undo back until the first move then:





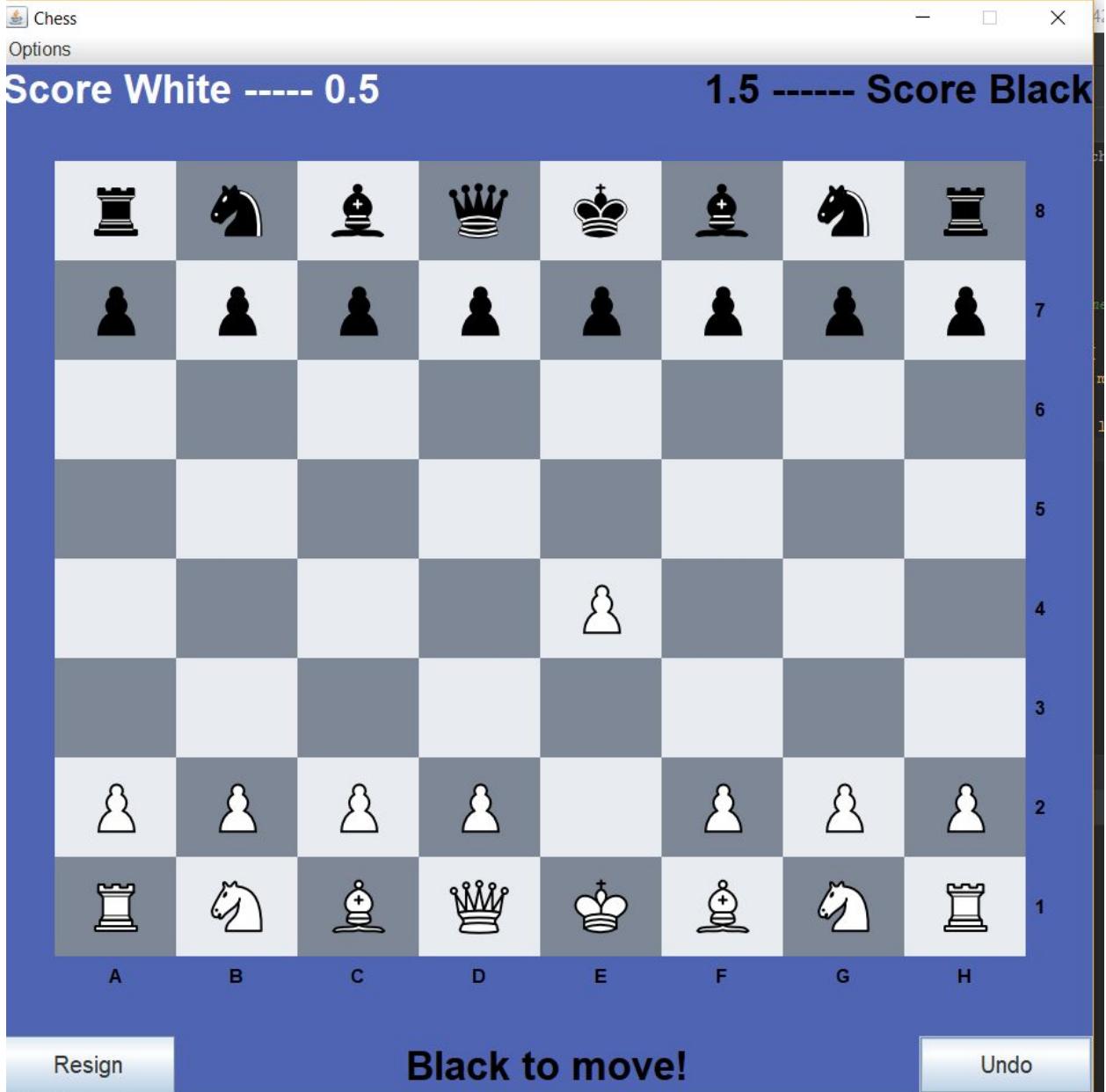












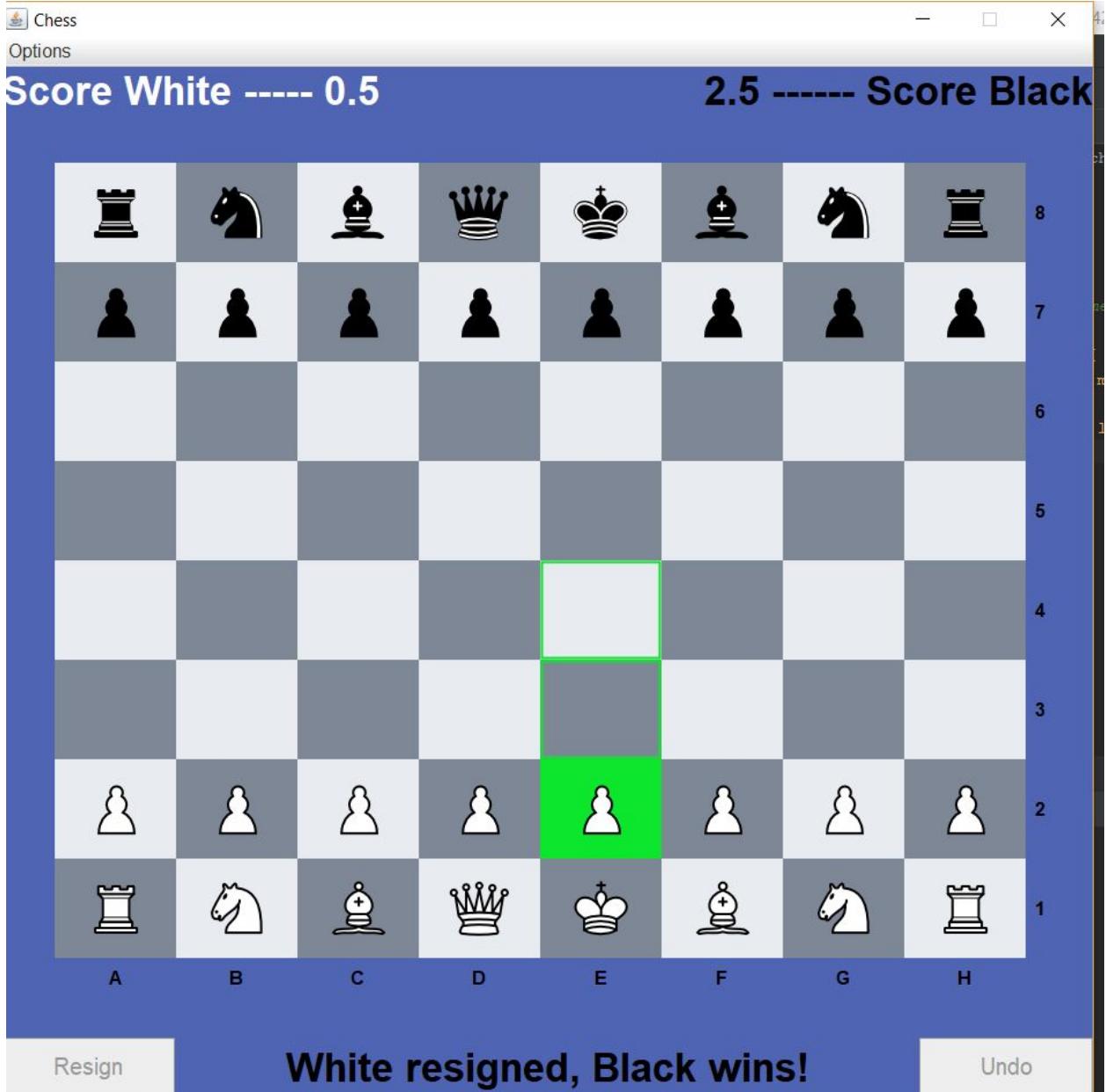


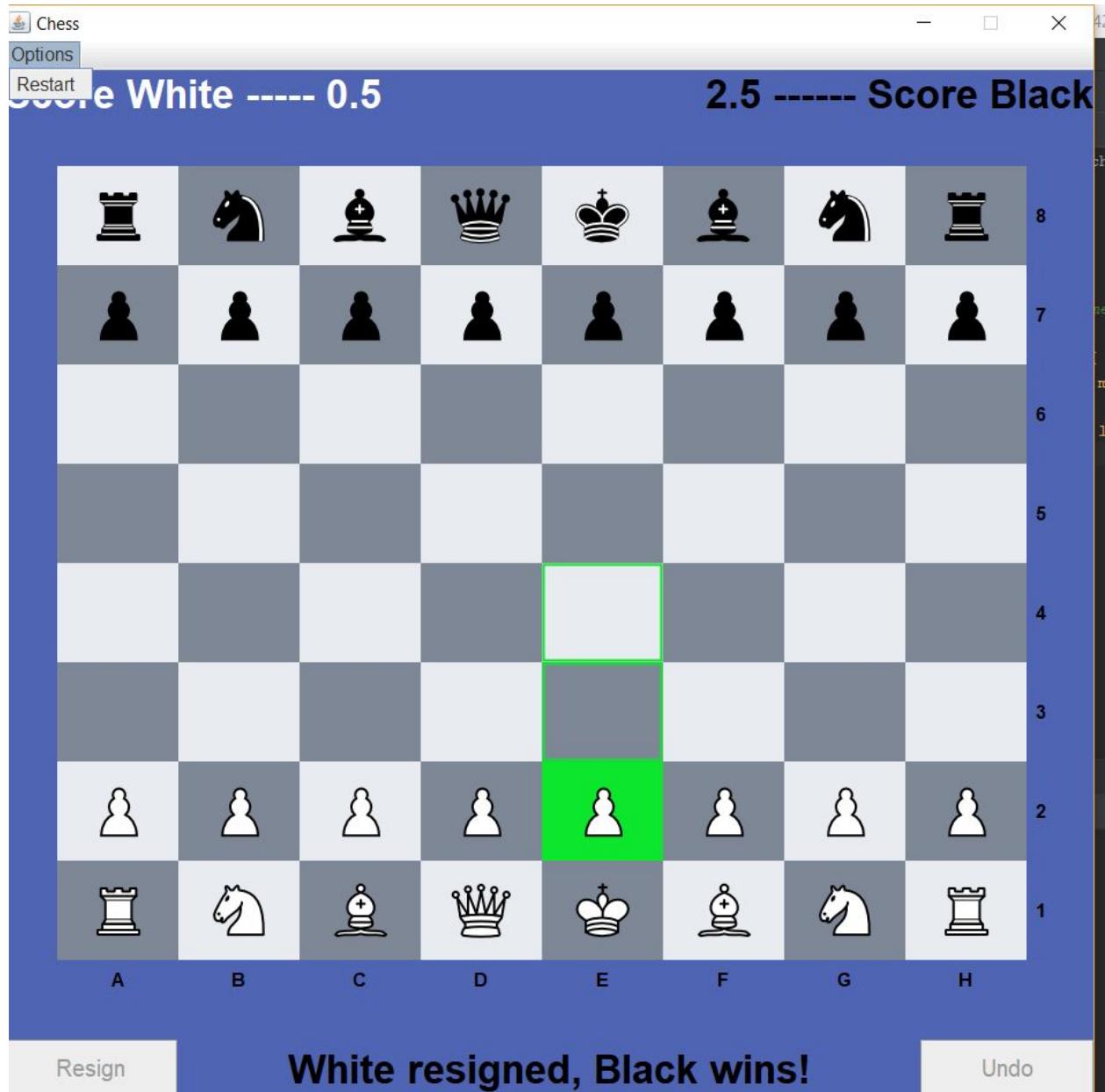
And you should convince yourself that this is the correct sequence. Now try click Undo button for multiple times (at the start position) to ensure it doesn't crack or do unnecessary actions.

Finally, click on the central pawn and make sure its hint correct as always.

Testing Resign:

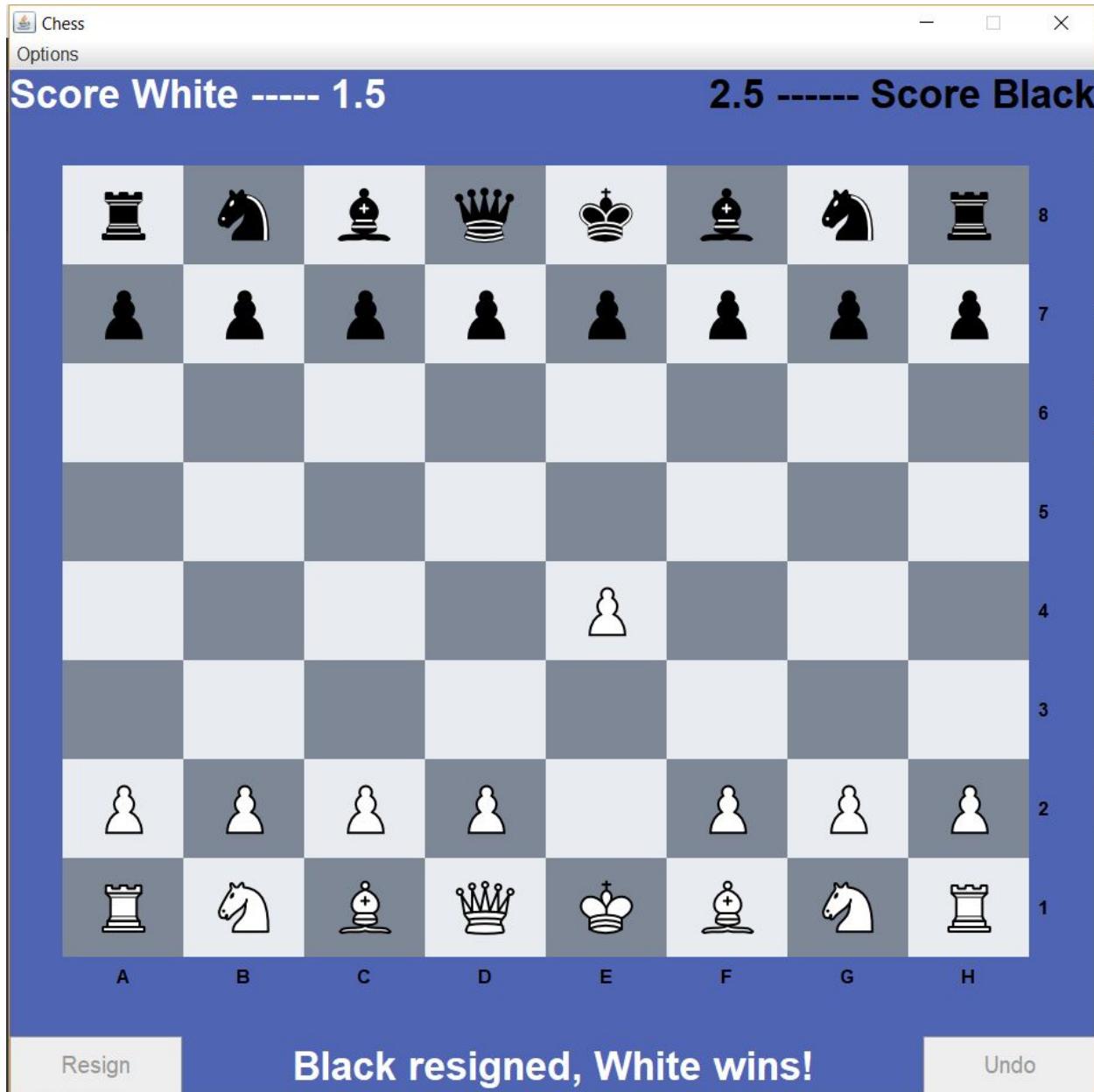












You can see screen freezes (just like draw or checkmate) and scores change correctly. The only option is restart.

Testing A Real Game (involving castling)

(<https://www.youtube.com/watch?v=p1VICYGiTE>)





























































































































Update:

For newest version of this game, 2 modes are provided (one is normal as above, the other is bishop -> princess and rook -> empress.)

To switch to the other mode, go to mode, then click the mode you want to go to (menu item should be unchecked).

Note switching mode will be treated as an automatic restart, that is, your current board will be lost.

Below is a simple demo on how it works:



